

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons which follow.

Claims 1, 30, 32, 39 and 40 are currently being amended. After amending the claims as set forth above, claims 1-30 and 32-45 are now pending in this application. Claims 34-38 and 41-45 are allowed. Claims 3, 5-10, 12-14, 21, 23-26 and 28 have been indicated as being allowable. Claims 1, 2, 4, 11, 15-20, 22, 27, 29, 30, 32, 33, 39, and 40 stand rejected as allegedly being obvious over U.S. Pat. No. 4,964,874 to Saphakkul ("Saphakkul") and the abstract for JP 58023898A ("JP '898"). In view of the amendments and remarks herein, reconsideration is respectfully requested.

Applicants thank the Examiner for the informative telephonic interview ("interview") on May 14, 2003, the content of which is incorporated into the following comments.

Claims 1, 2, 4, 11, 15-20, 22, 27, 29, 30, 32, 33, 39, and 40 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Saphakkul in view of JP '898.

In contrast to the claimed invention, both Saphakkul and JP '898 disclose aqueous compositions where water is the solvent. Saphakkul discloses a hair dye composition comprising (a) up to 5% of a cationic surfactant; (b) up to 5% by weight of a fatty alcohol; (c) up to 5% of a basic dye; and (d) up to 5% of a neutral dye. (*See* Saphakkul at col. 2, lines 8 – 19; emphasis supplied). Additionally, the reference teaches that the four components are present in an aqueous medium in which water comprises up to 99% of the composition by weight. (*See*, Col. 2, line 25; col. 4, lines 12 – 13; *see also*, Example 1 (water is 90.77% by weight) and Example 2 (water is 95.75% by weight)). Saphakkul also refers repeatedly to pH adjustment, *see, e.g.*, col. 4, lines 31 – 58, which is applicable to only aqueous compositions. JP '898 discloses a shampoo that comprises (a) up to 1.5% of hydroxypropyl guar gum; (b) up to 20% of an alcohol with C₁₋₄ alkyl groups; (c) up to 50% of a surfactant; and (d) up to 7% of an electrolyte. The overwhelming majority (*e.g.*, up to 95%) of the composition is water. In view of the polar solutes that comprise the balance of the shampoo composition and the fact that the shampoo has "high transparency," it can be fairly said that water is the

solvent. Thus Saphakkul and JP '898 are clearly limited to aqueous compositions where water is the solvent.

The claims, as amended, are directed to an agricultural composition comprising (a) greater than 5% and up to 75% by weight of a lipophilic solvent; (b) at least one lipophobic plant nutrient; and (c) at least one cationic emulsifier that acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient. The composition, as amended, is neither disclosed nor suggested by Saphakkul or JP '898.

The Examiner construes the "fatty alcohol" of Saphakkul as the claimed lipophilic solvent. However, Saphakkul itself plainly states otherwise: the reference states that "[t]he production of a disperse lamellar liquid crystal phase is most conveniently effected by the inclusion of a fatty alcohol . . ." (col. 2, lines 50 – 52) and that "such fatty alcohols [are] . . . sufficient to convert the cationic surfactant to the disperse lamellar liquid crystal phase." (col. 2, lines 58 – 61). The clear teaching of Saphakkul is that the fatty alcohol is not a solvent but instead is present to form a distinct phase within the aqueous hair dye composition.

Moreover, neither Saphakkul nor JP '898 disclose or suggest that the lipophilic solvent is present in an amount greater than 5% and up to 75% by weight. Thus, Saphakkul and JP '898, either alone or in combination, do not disclose or suggest the claimed agricultural composition. Assuming, *arguendo*, that the "fatty alcohol" in Saphakkul is a lipophilic solvent, a contention Applicants clearly disagree with, one of ordinary skill in the art would still not have considered it obvious to arrive at the claimed composition in which a lipophilic solvent is present in a range *greater than* 5% by weight because Saphakkul discloses the presence of a fatty alcohol in a range of *no more than* 5% by weight. Consequently, neither Saphakkul or JP '898 teaches nor suggests the claimed compositions or methods.

The rejection is also improper because the references are in an art which is non-analogous to the instantly claimed invention. As discussed above, Saphakkul and JP '898 relate to hair products, whereas the claimed invention is directed to an agricultural

composition. Consequently, a person of ordinary skill in the art would not have been motivated to combine Saphakkul and JP '898 to arrive at the claimed invention.

A requirement in establishing a *prima facie* case of obviousness is to point out a suggestion or motivation to combine the references. *See* MPEP 2143. It is well settled law that "[i]n order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). *See also In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 23 USPQ2d 1058 (Fed. Cir. 1992).

Neither reference, nor a combination of the two, would solve the problem of providing a stable homogeneous blend comprising a lipophilic solvent and lipophobic plant nutrient. The claimed invention, in contrast, represents an advance over the prior art because it allows the dissolution of an otherwise insoluble lipophobic plant nutrient in a lipophilic solvent. *See* specification at page 2, line 29 to page 3, line 2. Neither reference purports to solve this problem specifically or even the problem of solubility generally. The hair dye compositions of Saphakkul are formulated carefully in order to avoid the staining of a user's hands. (*See* col. 1, line 61 to col. 2, line 2). JP '898 is simply silent as to any problem it may solve. Thus, a person of ordinary skill would have no reason to look to these two references in the hair products art to arrive at the inventive solution lying in the agricultural art, not in the least because the problem of lipophobic plant nutrient insolubility in lipophilic solvents does not arise in the context of hair products and is addressed by neither reference.

Applicants finally note that the Examiner has rejected claim 33 as being obvious over Saphakkul and JP '898. Claim 33 relates to a method of treating vegetation which comprises applying the claimed agrochemical composition to the vegetation. Neither Saphakkul nor JP '898 disclose or suggest this claimed method.

For at least the reasons stated above, Applicants respectfully submit that claims 1, 30, 32, 33, 39 and 40 are patentable over the prior art of record. Since claims 2, 4, 11, 15-20, 22,

27 and 29 depend from claim 1, for at least these reasons these claims are also patentable over the prior art of record.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date May 29, 2003

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MARKED UP VERSION OF THE CLAIMS SHOWING CHANGES MADE

1. (2x Amended) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

(a) greater than [from] 5 % and up to 75% by weight of one or more lipophilic solvents;

(b) one or more lipophobic plant nutrients present up to about 50% by weight; and

(c) a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

30. (2x Amended) An agrochemical composition comprising a chemical used in agriculture and an activity enhancing amount of a homogeneous liquid adjuvant, said homogeneous liquid adjuvant comprising:

(a) greater than [from] 5 % and up to 75% by weight of one or more lipophilic solvents;

(b) one or more lipophobic plant nutrients present up to about 50% by weight; and

(c) a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

32. (2x Amended) A method for enhancing the activity of a chemical used in agriculture comprising the step of combining the chemical with a homogeneous liquid adjuvant comprising:

- (a) greater than [from] 5 % and up to 75% by weight of one or more lipophilic solvents;
- (b) one or more lipophobic plant nutrients present up to about 50% by weight; and
- (c) a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

39. (2x Amended) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

- (a) greater than [from] 5 % and up to 75% by weight of one or more lipophilic solvents;
- (b) one or more lipophobic plant nutrients present up to about 50% by weight; and
- (c) a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight; and

(d) from 1 to 30% of one or more other components to improve the form of the composition.

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

40. (2x Amended) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

(a) greater than [from] 5 % and up to 75% by weight of one or more lipophilic solvents;

(b) one or more lipophobic plant nutrients present up to about 50% by weight ;
and

(c) a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight; and

(d) from 1 to 30% of one or more other components to improve the form of the composition selected from the group consisting of nonionic emulsifiers, co-solvents and mixtures thereof;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.